B1

SEQUENCE LISTING

<110> Efendic, Suad

<120> USE OF GLP-1 OR ANALOGS IN TREATMENT OF STROKE

<130> X-11158

<140> US 09/400,802
<141> 1999-09-22

<150> US 60/101,719
<151> 1998-09-24

<160> 35

<170> PatentIn version 3.1

<210> 1
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<212> PRT
<213> Homo sapiens

<400> 1

His Ala Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
1 5 10 15

Gln Ala Ala Lys Glu Phe Ile Ala Trp Leu Val Lys Gly Arg Gly
20 25 30

<210> 2
<211> 28
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<400> 2

His Ala Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
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Gln Ala Ala Lys Glu Phe Ile Ala Trp Leu Val Lys
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<212> PRT
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<400> 3

His Ala Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
1 5 10 15

Gln Ala Ala Lys Glu Phe Ile Ala Trp Leu Val Lys Gly
20 25

<210> 4
<211> 30
<212> PRT
<213> Homo sapiens

<400> 4

His Ala Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
1 5 10 15

Gln Ala Ala Lys Glu Phe Ile Ala Trp Leu Val Lys Gly Arg
20 25 30

<210> 5
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<400> 5

His Val Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
1 5 10 15

Gln Ala Ala Lys Glu Phe Ile Ala Trp Leu Val Lys Gly Arg Gly
20 25 30

<210> 6
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<400> 6

His Ala Gln Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
1 5 10 15

Gln Ala Ala Lys Glu Phe Ile Ala Trp Leu Val Lys Gly Arg Gly
20 25 30

<210> 7
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<222> (3)..(3)
<223> Xaa at position 3 is D-Gln.

<400> 7

His Ala Xaa Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
1 5 10 15

Gln Ala Ala Lys Glu Phe Ile Ala Trp Leu Val Lys Gly Arg Gly
20 25 30

<210> 8
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<400> 8

His Ala Glu Gly Thr Phe Thr Ser Asp Thr Ser Lys Tyr Leu Glu Gly
1 5 10 15

Gln Ala Ala Lys Glu Phe Ile Ala Trp Leu Val Lys Gly Arg Gly
20 25 30

<210> 9
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<400> 9

His Ala Glu Gly Thr Phe Thr Ser Asp Val Ser Lys Tyr Leu Glu Gly
1 5 10 15

Gln Ala Ala Lys Glu Phe Ile Ala Trp Leu Val Lys Gly Arg Gly
20 25 30

<210> 10
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<222> (20)..(20)
<223> Xaa at position 20 is D-Lys, Gly, Ser, Ala, Leu, Ile, Gln, Arg,

D-Arg and Met;

<220>
<221> MISC_FEATURE
<222> (28)..(28)
<223> Xaa at position 28 is D-Lys, Gly, Ser, Ala, Leu, Ile, Gln, Arg,
D-Arg and Met.

<400> 10

His Ala Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
1 5 10 15

Gln Ala Ala Xaa Glu Phe Ile Ala Trp Leu Val Xaa
20 25

<210> 11
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<222> (20)..(20)
<223> Xaa at position 20 is D-Lys, Gly, Ser, Ala, Leu, Ile, Gln, Arg,
D-Arg and Met;

<220>
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<222> (28)..(28)
<223> Xaa at position 28 is D-Lys, Gly, Ser, Ala, Leu, Ile, Gln, Arg,
D-Arg and Met.

<400> 11

His Ala Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
1 5 10 15

Gln Ala Ala Xaa Glu Phe Ile Ala Trp Leu Val Xaa Gly
20 25

<210> 12
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<220>
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<222> (20)..(20)
<223> Xaa at position 20 is D-Lys, Gly, Ser, Ala, Leu, Ile, Gln, Arg,

D-Arg and Met;

<220>
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<222> (28)..(28)
<223> Xaa at position 28 is D-Lys, Gly, Ser, Ala, Leu, Ile, Gln, Arg, D-Arg and Met;

<220>
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<222> (30)..(30)
<223> Xaa at position 30 is Lys, D-Lys, Gly, Ser, Ala, Leu, Ile, Gln, Met and D-Arg.

<400> 12

His Ala Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
1 5 10 15

Gln Ala Ala Xaa Glu Phe Ile Ala Trp Leu Val Xaa Gly Xaa Gly
20 25 30

<210> 13
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<220>
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<222> (10)..(10)
<223> Xaa at position 10 is Tyr or Val;

<220>
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<222> (12)..(12)
<223> Xaa at position 12 is Lys or Ser;

<220>
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<222> (15)..(15)
<223> Xaa at position 15 is Asp or Glu;

<220>
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<222> (16)..(16)
<223> Xaa at position 16 is Ser or Gly;

<220>
<221> MISC_FEATURE
<222> (17)..(17)
<223> Xaa at position 17 is Arg or Gln;

<220>
<221> MISC_FEATURE
<222> (18)..(18)
<223> Xaa at position 18 is Arg or Ala;

<220>
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<222> (20)..(20)
<223> Xaa at position 20 is Gln or Lys.

<400> 13

His Ala Glu Gly Thr Phe Thr Ser Asp Xaa Ser Xaa Tyr Leu Xaa Xaa
1 5 10 15

Xaa Xaa Ala Xaa Glu Phe Ile Ala Trp Leu Val Lys Gly Arg Gly
20 25 30

<210> 14
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<220>
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<400> 14

Tyr Ala Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
1 5 10 15

Gln Ala Ala Lys Glu Phe Ile Ala Trp Leu Val Lys Gly Arg Gly
20 25 30

<210> 15
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<223> synthetic construct

<220>
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<222> (1)..(1)
<223> Xaa at position 1 is N-acetyl-His.

<400> 15

Xaa Ala Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
1 5 10 15

Gln Ala Ala Lys Glu Phe Ile Ala Trp Leu Val Lys Gly Arg Gly
20 25 30

<210> 16
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<222> (1)..(1)
<223> Xaa at position 1 is N-isopropyl-His.

<400> 16

Xaa Ala Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
1 5 10 15

Gln Ala Ala Lys Glu Phe Ile Ala Trp Leu Val Lys Gly Arg Gly
20 25 30

<210> 17
<211> 31
<212> PRT
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<220>
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<220>
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<222> (2)..(2)
<223> Xaa at position 2 is D-Ala.

<400> 17

His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
1 5 10 15

Gln Ala Ala Lys Glu Phe Ile Ala Trp Leu Val Lys Gly Arg Gly
20 25 30

<210> 18
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<220>
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<222> (3)..(3)
<223> Xaa at position 3 is D-Glu.

<400> 18

His Ala Xaa Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
1 5 10 15

Gln Ala Ala Lys Glu Phe Ile Ala Trp Leu Val Lys Gly Arg Gly
20 25 30

<210> 19
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<220>
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<400> 19

His Ala Asp Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
1 5 10 15

Gln Ala Ala Lys Glu Phe Ile Ala Trp Leu Val Lys Gly Arg Gly
20 25 30

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<222> (3)..(3)
<223> Xaa at position 3 is D-Asp.

<400> 20

His Ala Xaa Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
1 5 10 15

Gln Ala Ala Lys Glu Phe Ile Ala Trp Leu Val Lys Gly Arg Gly
20 25 30

<210> 21
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<220>
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<222> (4)..(4)
<223> Xaa at position 4 is D-Phe.

<400> 21

His Ala Glu Xaa Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
1 5 10 15

Gln Ala Ala Lys Glu Phe Ile Ala Trp Leu Val Lys Gly Arg Gly
20 25 30

<210> 22
<211> 31
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic construct

<400> 22

His Ala Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Ser
1 5 10 15

Arg Arg Ala Gln Glu Phe Ile Ala Trp Leu Val Lys Gly Arg Gly
20 25 30

<210> 23
<211> 31
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic construct

<400> 23

His Ser Gln Gly Thr Phe Thr Ser Asp Tyr Ser Lys Tyr Leu Asp Gly
1 5 10 15

Gln Ala Ala Lys Glu Phe Ile Ala Trp Leu Val Lys Gly Arg Gly
20 25 30

<210> 24
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<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic construct

<220>
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<222> (1)..(1)
<223> Xaa at position 1 is His, D-histidine, desamino-histidine, 2-amino-histidine, beta-hydroxy-histidine, homohistidine, alpha-fluormethyl-histidine, and alpha-methyl-histidine;

<220>

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<222> (2)..(2)
<223> Xaa at position 2 is Ala, Gly, Val, Thr, Ile, and alpha-methyl-Ala;

<220>
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<222> (15)..(15)
<223> Xaa at position 15 is Glu, Gln, Ala, Thr, Ser, and Gly;

<220>
<221> MISC_FEATURE
<222> (21)..(21)
<223> Xaa at position 21 is Glu, Gln, Ala, Thr, Ser, and Gly;

<220>
<221> MISC_FEATURE
<222> (31)..(31)
<223> Xaa at position 31 is Gly-OH or is absent.

<400> 24

Xaa Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Xaa Gly
1 5 10 15

Gln Ala Ala Lys Xaa Phe Ile Ala Trp Leu Val Lys Gly Arg Xaa
20 25 30

<210> 25
<211> 30
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic construct

<400> 25

His Gly Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
1 5 10 15

Gln Ala Ala Lys Glu Phe Ile Ala Trp Leu Val Lys Gly Arg
20 25 30

<210> 26
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<220>
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<222> (3)..(3)
<223> Xaa at position 3 is acetyl-Lys.

<400> 26

His Ala Xaa Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
1 5 10 15

Gln Ala Ala Lys Glu Phe Ile Ala Trp Leu Val Lys Gly Arg Gly
20 25 30

<210> 27
<211> 31
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<220>
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<400> 27

His Ala Thr Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
1 5 10 15

Gln Ala Ala Lys Glu Phe Ile Ala Trp Leu Val Lys Gly Arg Gly
20 25 30

<210> 28
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<220>
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<222> (3)..(3)
<223> Xaa at position 3 is D-Thr.

<400> 28

His Ala Xaa Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
1 5 10 15

Gln Ala Ala Lys Glu Phe Ile Ala Trp Leu Val Lys Gly Arg Gly
20 25 30

<210> 29
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<220>
<223> synthetic construct

<400> 29

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His Ala Asn Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
1               5                  10                  15

Gln Ala Ala Lys Glu Phe Ile Ala Trp Leu Val Lys Gly Arg Gly
            20                  25                  30


<210>  30
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<213>  Artificial Sequence

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<223>  synthetic construct

<220>
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<222>  (3)..(3)
<223>  Xaa at position 3 is D-Asn.


<400>  30

His Ala Xaa Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
1               5                  10                  15


Gln Ala Ala Lys Glu Phe Ile Ala Trp Leu Val Lys Gly Arg Gly
            20                  25                  30


<210>  31
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<212>  PRT
<213>  Artificial Sequence

<220>
<223>  synthetic construct

<400>  31

His Ala Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
1               5                  10                  15


Arg Ala Ala Lys Glu Phe Ile Ala Trp Leu Val Lys Gly Arg Gly
            20                  25                  30


<210>  32
<211>  31
<212>  PRT
<213>  Artificial Sequence

<220>
<223>  synthetic construct

<400>  32

His Ala Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
1               5                  10                  15
```

Gln Arg Ala Lys Glu Phe Ile Ala Trp Leu Val Lys Gly Arg Gly
20 25 30

<210> 33
<211> 28
<212> PRT
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<220>
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<220>
<221> MISC_FEATURE
<222> (28)..(28)
<223> Xaa at position 28 is Lys and Lys-Gly.

<400> 33

His Ala Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
1 5 10 15

Gln Ala Ala Lys Glu Phe Ile Ala Trp Leu Val Xaa
20 25

<210> 34
<211> 28
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic construct

<220>
<221> MISC_FEATURE
<222> (28)..(28)
<223> Xaa at position 28 is Lys, Lys-Gly, Lys-Gly-Arg.

<400> 34

His Ala Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
1 5 10 15

Gln Ala Ala Lys Glu Phe Ile Ala Trp Leu Val Xaa
20 25

<210> 35
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<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic construct

<220>
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<222> (1)..(1)
<223> Xaa at position 1 is 4-imidazopropionyl, 4-imidazoacetyl,

4-imidazo-alpha, or alpha dimethyl-acetyl;

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<222> (20)..(20)
<223> Xaa at position 20 is Lys or Arg;

B1

<220>
<221> MISC_FEATURE
<222> (31)..(31)
<223> Xaa at position 31 is Gly or absent.

Conclude

<400> 35

Xaa Ala Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
1 5 10 15

Gln Ala Ala Xaa Glu Phe Ile Ala Trp Leu Val Lys Gly Arg Xaa
20 25 30